

1
Cure

affixing at least one additional pre-cured assembly to said 3-D woven textile pre-form with an additional adhesive film being located between said at least one additional pre-cured assembly and said pre-form; and

curing said resin and said adhesive films to form the structural assembly.

Sab D4

16. (Twice Amended) The method of Claim 13, wherein said step of curing is implemented with heat and pressure.

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17. (Twice Amended) The method of claim 13, wherein said perform has an exterior portion that is not located between said pre-cured assemblies, and pressure is applied with a pressure intensifier located in contact with said exterior surface of said 3-D woven textile pre-form, the pressure intensifier pressing said exterior portion against a portion of one of said pre-cured assemblies.

C3

18. (Amended) The method of claim 13, wherein said step of curing is implemented by inserting said first and second pre-cured assemblies along with said pre-form and adhesive films into a vacuum bag, then evacuating the vacuum bag and heating the vacuum bag.

20. (Amended) The method of claim 16, wherein said pre-form has at least one exterior portion that is not located between said pre-cured assemblies, the method further comprising the step of applying a composite overwrap ply on said exterior portion of said 3-D woven textile pre-form.

CX

21. (Amended) The method of Claim 13, wherein said curing is performed by placing a pressure intensifier against an exterior surface of said pre-form that is not located between said pre-cured assemblies, inserting said first and second pre-cured assemblies along with said pre-form, adhesive films and pressure intensifier into a vacuum bag, then evacuating the vacuum bag, causing the pressure intensifier to press said exterior surface of said pre-form against a portion of one of said pre-cured assemblies, then heating the vacuum bag.

CX

23. (Amended) The method of Claim 13, wherein said 3-D woven textile pre-form further comprises a base and a leg extending from said base at an angle relative to said base.

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24. (Twice Amended) A method of forming structural assemblies with pre-cured laminated composite structures, comprising the steps of:

providing a woven textile pre-form with a base and at least one leg extending from the base at an angle, the pre-form being impregnated with an uncured resin;

affixing a first adhesive film between a first pre-cured laminated composite structure and the base of the pre-form ;

affixing an additional adhesive film between at least one additional pre-cured laminated composite structure and the leg of said 3-D woven textile pre-form; then

curing said adhesive films and said 3-D woven textile pre-form to form the structural assemblies.

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26. (Amended) The method of claim 24, wherein the leg of said pre-form is not located between the composite structures, and pressure is applied during said curing step with a flexible pressure intensifier located in contact with an exterior surface of said leg of said 3-D woven textile pre-form to force said leg against one of said composite structures.

CH

27. (Amended) The method of claim 24, wherein said step of curing is implemented by inserting said first and second pre-cured assemblies along with said pre-form and adhesive films into a vacuum bag, then evacuating and heating the vacuum bag.

CH

29. (Amended) The method of Claim 27, further comprising the step of applying a composite overwrap ply on said exterior surface of said 3-D woven textile pre-form.

CH

32. (Amended) The method of Claim 24, wherein said 3-D woven textile pre-form further comprises at least one fiber woven through an intersection of said base and said leg.

38. (Amended) The method of Claim 13, wherein said 3-D woven textile pre-form is T-shaped.

CH

39. (Amended) The method of Claim 13, wherein said 3-D woven textile pre-form is Pi-shaped.

Ex
42. (Amended) The method of Claim 24, wherein said 3-D woven textile pre-form is T-shaped.

C13
43. (Amended) The method of Claim 24, wherein said 3-D woven textile pre-form has an additional leg extending from the base, defining a pi-shape.

C13
45. (Amended) The method of Claim 13, wherein said pre-form has at least one exterior surface that is not located between the pre-cured assemblies, the method further comprising tapering a thickness of the pre-form at an edge of said exterior surface of the pre-form.

New Claim

Sch 34
46. A method of forming structural assemblies with pre-cured laminated composite structures, comprising the steps of:

providing a woven textile pre-form with a base and a pair of legs extending from the base at an angle, defining a slot between them and corners at intersections of the legs and the base, the pre-form being impregnated with an uncured resin;

affixing a first adhesive film between a pre-cured laminated composite first structure and the base of the pre-form on a side opposite the legs;

CTP
inserting a pre-cured laminated composite second structure into the slot with additional adhesive films between inside surfaces of the legs and the second structure;

providing a pair of flexible pressure intensifiers, each having a corner portion, and placing the corner portion of each in contact with one of the corners formed by the base and the legs; then

inserting the first and second structures, along with the pre-form, adhesive films and pressure intensifiers into a vacuum bag; and

evacuating the vacuum bag and applying heat to cure said adhesive films and pre-form to form the structural assemblies.

Remarks

Applicant has canceled the non-elected claims and amended the elected claims and added a new claim to better define the invention. Applicant respectfully traverses the rejections of the claims